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Abstract of the Disclosure

A system and method for providing a tactile virtual reality to a user is present. The position and orientation of the user is utilized to generate a virtual reality force field. Forces are in turn generated on the user as a function of this force field. A six-axis manipulator is presented for providing a user interface to such a system. This manipulator provides a unique kinematic structure with two constant force springs which provide gravity compensation so that the manipulator effectively floats.